

AMENDMENTS TO THE CLAIMS

Please amend claims 3, 4, 10, 13, 14, 17-20, 22 and 23 and please add claim 24.

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A method of amyloid fibril formation using a heterogeneous source of protein as a starting material.
2. (Original) A method according to claim 1 wherein the protein source has a high glutamine content.
3. (Currently Amended) A method according to claim 1 ~~or claim 2~~ wherein the protein source is from wheat source or a wheat protein sequence from a microbiological expression system.
4. (Currently Amended) A biomaterial containing amyloid fibrils made according to ~~any one of claim[s] 1[- 3]~~.
5. (Original) A method of producing amyloid fibrils from a high molecular weight, heterogeneous source of protein as a starting material.
6. (Original) A method according to claim 5 wherein the starting material is a wheat protein.
7. (Original) A method according to claim 6 in which the wheat protein is from a microbiological expression system.
8. (Original) A method according to claim 6 wherein the starting material is an SDS-soluble wheat protein fraction.

9. (Original) A method according to claim 7 wherein the starting material is an SDS-insoluble wheat protein fraction.

10. (Currently Amended) Amyloid fibrils produced by the method of ~~any one of~~ claim[s] 1-3 ~~or 5-9~~.

11. (Original) A method of producing amyloid fibrils derived from wheat, comprising: (a) Providing wheat protein, crudely fractionated from a milled flour; (b) Separating a heterogeneous protein mixture on the basis of solubility ; (c) Obtaining protein solutions containing a broad range of proteins of varying molecular weights and compositions; (d) Incubation of these fractions at moderate temperatures, typically in the presence of specific compounds known to destabilise a protein's structure. to induce the formation of amyloid

12. (Original) Amyloid fibrils produced by the method of claim 11.

13. (Currently Amended) A method according to ~~any one of~~ claim[s] 1-3, 5-9 ~~or 11~~ wherein the method is performed in vitro.

14. (Currently Amended) A method according to ~~any one of~~ claim[s] 1-3, 5-9 ~~or 11~~ wherein a denaturing compound is added to induce the formation of amyloid-like structures.

15. (Original) A method according to claim 14 wherein the denaturing compound is one or more of urea, a thiol containing reductant (e. g. dithiothreitol (DTT)), or an acid (e. g. H₂SO₄, HCl).

16. (Original) A method according to claim 15 wherein the pH range is 2-7.5, preferably 5-7.5.

17. (Currently Amended) A method according to claim[s] 15 [or 16] wherein the temperature range is 20-70 C, preferably about 50 C.

18. (Currently Amended) A method according to ~~any one of~~ claim[s] 14[-16] wherein the denaturing compound is incubated with the protein source at 25 C for up to 105 days.

19. (Currently Amended) A method according to ~~any one of~~ claim[s] 14[-16] wherein the denaturing compound is incubated with the protein source at 37°C for up to 105 days.

20. (Currently Amended) A method according to claim[s] 18 [or 19] wherein the incubated protein is a wheat protein.

21. (Original) A method according to claim 20 wherein the incubated protein is substantially a wheat protein sequence from a microbiological expression system.

22. (Currently Amended) A method according to ~~any one of~~ claims 1-3, 5-9, 11 or 13-21 wherein an extraneous amyloid fibril (~~e.g. insulin fibril~~) is added as a "~~seed~~"seed to induce amyloid fibril formation in the wheat protein treatments.

23. (Currently Amended) Amyloid fibrils produced by the method[s] of ~~any one of~~ claim[s] 13[-22].

24. (New) The method of claim 22 wherein the amyloid fibril comprises insulin fibril.